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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,304	02/24/2004	Kevin Grold	3050-02	2303
37101	7590	06/28/2007	EXAMINER	
LAW OFFICE OF MICHAEL P. EDDY MICHAEL P. EDDY 12526 HIGH BLUFF DRIVE, STE. 300 SAN DIEGO, CA 92130				BLOUNT, ERIC
ART UNIT		PAPER NUMBER		
		2612		
NOTIFICATION DATE		DELIVERY MODE		
		06/28/2007		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/708,304	GROLD ET AL.
	Examiner	Art Unit
	Eric M. Blount	2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 March 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,6-26 and 29-46 is/are rejected.
- 7) Claim(s) 4,5,27 and 28 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 March 2006 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Status of Claims**

1. Claims 1-46 are pending in the application. Claims have been amended to overcome minor informalities indicated in the official action mailed September 20, 2005.

### ***Drawings***

2. The drawings were received on March 20, 2006. These drawings are accepted.

### ***Response to Arguments***

3. Applicant's arguments filed March 20, 2006 have been fully considered but they are not persuasive. Please see the rejections of the claims below.

### **Applicants Arguments:**

- Applicants argue that examiner has failed to establish *prima facie* obviousness of the claimed invention due to hindsight reasoning. Further, applicants argue that Avni does not teach or suggest an alarming apparatus or method for alarming or alerting a user to an excessive amount of impact, but instead teaches a system limited to the rehabilitation of injuries to the lower extremities of a user. Applicants also argue that the Avni reference serves a different purpose than the claimed invention and that there is no motivation or suggestion to modify the reference to reach the claimed invention.

### **Examiners Response:**

- In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).
- In response to applicant's argument that there is no suggestion to modify the Avni reference, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) And *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Avni discloses a method and system in the same field of endeavor as the claimed invention. While Avni's purpose/use is different from that of the claimed invention, Avni's invention encompasses the instant application as presently claimed. In particular, the force applied to a user's lower extremity, in a shoe, is measured and feedback (alarm) is given to the user to adjust the weight being applied to said extremity. The obviousness rejection made by the examiner does not modify the functionality of the Avni reference to reach the claimed invention, only the connection and communication between system components.

- In response to applicant's argument that Avni does not serve the same purpose as the present invention, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-3, 6-13, 15-17, 19-22, 24-26, 29-36, 38-40, and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avni et al [U.S. Patent No. 6,273,863].

As for **claims 1, 12, 24, and 35**, Avni et al disclose a body force alarming apparatus comprising:

- A housing (insole, column 5, lines 59-61);

- A power supply (301);
- A piezo sensor (201);
- A controller (205); and
- An output generator (302, 209, and column 6, lines 8-10);
- Wherein the piezo sensor is accommodated within a user's shoe and connected to the controller (column 3, lines 20-30 and column 5, lines 55-62);
- Wherein the piezo sensor, controller, and output generator are connected to the power supply (column 5, lines 55-60);
- The controller is connected to the output generator (column 5, line 65 – column 6, line 10);
- The controller is set to generate a signal to the output generator when a threshold level of force signal received from the piezo sensor (column 5, line 65 – column 6, line 12 and column 6, line 48-57);
- Wherein the sensor signals the controller when force from an impact is applied to the piezo sensor (Columns 5 and 6 show that when the sensory electrodes sense a force, the signal is sent to the controller. Sensing the force of walking is interpreted as an impact);
- The controller signals the output generator when one or more threshold levels of force have been reached (column 6, lines 35-67); and
- The output generator generates a perceivable signal in response to a signal from the controller (column 5, lines 66 – column 6, lines 12 and column 6, lines 48-57).

Avni et al do not specifically disclose that the controller, output generator, and power supply are all accommodated within the housing and that the controller is directly connected to the output generator. However, it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that the components could have all been incorporated into the same housing especially when vibrational or tactile output is generated (column 4, lines 53-58).. In that instance, an output would be generated at the monitored foot of a user, which would aid in training a user on how to walk or run appropriately. Incorporating all components in the same housing would have also resulted in the invention be compact and easily transportable by a user, which is one of the objectives of the Avni invention. Further, one of ordinary skill in the art would recognize that the D to A and an A to D converters taught by Avni, could be included in the CPU, as was well known in the art at the time of the present invention.

Regarding **claims 2 and 25**, Avni discloses that two or more piezo sensors provide feedback when one or more levels of force are sensed (column 5, lines 15-24).

Regarding **claims 3 and 26**, Avni discloses a means for automatically adjusting the controller (column 8, line 58 – column 9, line 5). The self-learning feature disclosed by Avni suggests that the controller is automatically adjusted.

As for **claims 6-10, 20-22, 29-33, and 43-45**, Avni discloses that the output generator may be any loudspeaker for generation of an alarm (column 6, lines 7-10). Avni also discloses that the output generator may be located remote from the piezo sensors and that the output generator may be in communication with the sensors via wireless communications (column 9, lines 35-43). It would have been obvious to one of ordinary skill in the art at the time of the

invention by the applicant that if the output generator were remote from other components of the system and communicated with wireless communication means, it would have a separate power source. Further, it is obvious that through the use of wireless communications, all components including the controller and the output generator could be separated from or attached to the user. It is obvious that all necessary components would include a wireless receiver.

Regarding **claims 11 and 34**, the piezo sensors taught by Avni reasonably appear to meet the limitation of impact transducers (column 5, lines 15-45).

As for **claims 13 and 36**, the perceivable output may be a vibration, audible signal, or a visual signal (column 4, lines 52-58).

As for **claims 15 and 38**, Avni disclose that an output generator generates two or more corresponding perceivable distinct signals in response to each corresponding signal from the controller (column 6, lines 49-57).

Regarding **claims 16 and 39**, low battery sensors and alarms were well known in the art at the time of the invention by the applicant. The inclusion of these sensors would have been an obvious modification which would allow a user to replace batteries before they stopped providing power to the system.

As for **claims 17 and 40**, Avni discloses an on/off switch (column 7, line 30).

Regarding **claims 19 and 42**, it was well known in the art at the time of the invention by the applicant for exercise and medical devices to have settings such as beginner, intermediate, and advanced to adjust a threshold. It would have been obvious to one of ordinary skill to add this feature to the device taught by Avni because it is conventional wisdom.

7. Claims 14, 23, 37, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avni et al as applied to the claims above, and further in view of Gray et al [U.S. Patent No. 5,357,696].

Regarding **claims 14 and 37**, Avni does not disclose that a controller is preset to generate two or more signals when two or more corresponding signals are received that are at or above two or more corresponding thresholds. In an analogous art, Gray shows that a pre-alarm threshold and an alarm threshold may be provided for sending signals to an output generator (column 7, lines 35-53). This teaching reasonably appears to meet the limitation of two signals being output to an output generator when two or more corresponding signals are received from the sensor, which are at or above the two, or more corresponding threshold levels of force. It would have been obvious to one of ordinary skill in the art to modify the teachings of Avni to include the teachings of Gray because it would allow a user to self-correct pressure exerted on the foot before an alarm event.

As for **claim 23 and 46**, Avni does not specifically disclose that output data output data is recorded. In an analogous art, Gray discloses that data pertaining to the forces applied to a limb may be recorded (column 5, lines 42-59). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to modify the invention of Avni to include a recording means as taught by Gray so that historical data could be monitored by a user and/or a physician to keep track of the health of a limb.

8. Claims 18 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avni et al as applied to the claims above, and further in view of Gray et al [U.S. Patent No. 6,122,846].

Regarding **claim 18 and 41**, Avni does not specifically disclose a digital display for displaying one or more amounts of force applied to the sensor. In an analogous art, Gray discloses that a visible output may be provided to notify the user of forces exerted on a foot. Gray also shows that a display means may show numerical characters (column 8, lines 52-67). It would have been obvious to one of ordinary skill in the art to modify the Avni reference to include the display means taught by Gray because the modification would result in a notification that would allow the user to ascertain the exact weight exerted on a limb and to adjust weight until a desired value is reached.

***Allowable Subject Matter***

9. Claims 4, 5, 27, and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

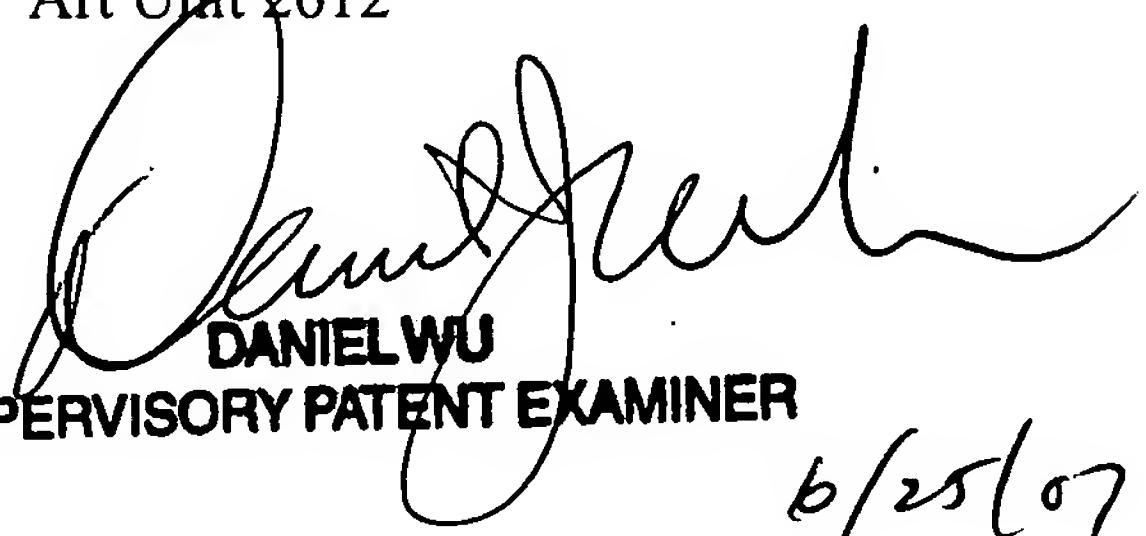
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Blount whose telephone number is (571) 272-2973. The examiner can normally be reached on Monday-Thursday 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric M. Blount  
Examiner  
Art Unit 2612

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER

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6/25/07